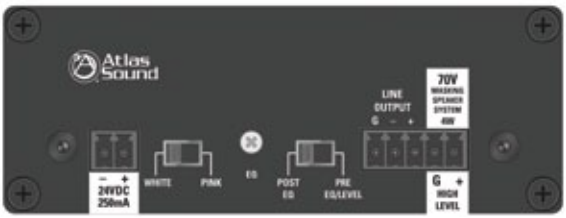
TSD-GPN1200
Sound Masking Generator



Atlas Sound
1601 Jack McKay Blvd. • Ennis, Texas 75119 U.S.A.
Telephone: 800.876.3333 • Fax: 800.765.3435

Specifications are subject to change without notice.

Description

The Atlas Sound TSD-GPN1200 sound masking generator is perfectly suited for basic sound masking systems. The analog topology design eliminates repeating cycles commonly found in other manufacture's low cost digital designs.

The TSD-GPN1200 includes a selectable pink or white noise generator and incorporates a variable balanced output to match input requirements of Atlas Sound equalizers and amplifiers.

In addition to the line level output, a 4W (70V Masking System) output is provided to power up to six masking loudspeakers tapped at .5W each. A variable hi-cut filter with operating range between 1kHz and 8kHz at a slope of 6dB per octave supports equalization requirements for most basic 4W amplifier Sound Masking systems. Both outputs may be used simultaneously allowing large zones to be addressed with external equalization and amplification while a smaller zone is powered by the internal amplifier with spectrum control from the internal high cut filter.

The TSD-GPN1200 is part of a full line of Atlas Sound Time Saving Devices. These compact (1.5" x 4" x 2.75") units are designed to solve some of the common audio system problems in the easiest and in the most efficient and cost-effective way. All models are made from high quality components and include removable individual I/O connectors for quick and precise wiring, separate ground terminals for all I/Os assuring secured connections, and removable level controls that can be replaced with tamper-proof security covers. The TSDs are highly efficient and meet Energy Star™ standards as one 24V DC power supply (available separately) can power multiple Time Saving Devices.

Features

- Analog Topology
- Selectable Pink or White Noise Generator
- Variable Level Control
- Variable Low Pass EQ
- Balanced Line Output
- 4W Speaker Output
- Multiple Mounting Configurations
- Cable Management System
- Separate Ground Connections
- Removable Phoenix Style I/O Connectors
- Meets Energy Star™ Standards
- Compact Chassis Design

Audio Applications

- Sound Masking
- Security Masking
- Pink Noise Generator
- White Noise Generator

Installation

- Call Centers
- Pharmacies
- Government Buildings
- Medical Facilities
- Open Office Environments
- Schools
- Industrial Facilities

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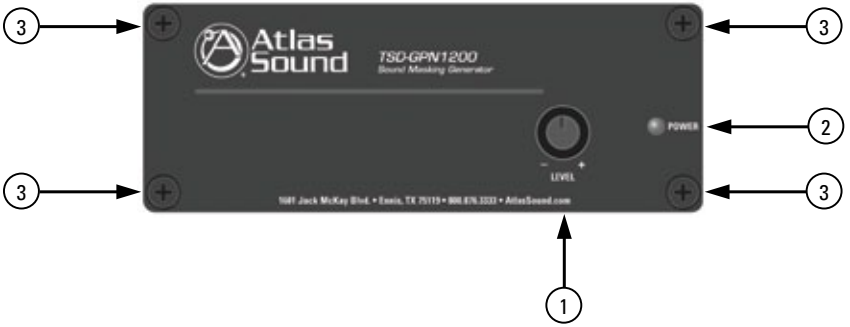
Front Panel Description



1. **Level Control** - Adjust the level of the masking signal at the High Level speaker output *and* at the Line Out if the Pre/Post switch is in the "Post" position. Turn clockwise to increase the signal level and counter-clockwise to decrease it. **Note:** The Level Control knob can be removed and replaced with a supplied security cover to prevent unauthorized adjustment.

2. **Power LED** - Illuminates Blue when 24VDC is present.

3. **Bracket Retainer Points** - Each TSD includes two mounting brackets for securing the TSD to a cabinet or wall. Remove screws and align the bracket with the panel hole before firmly tightening the screws.

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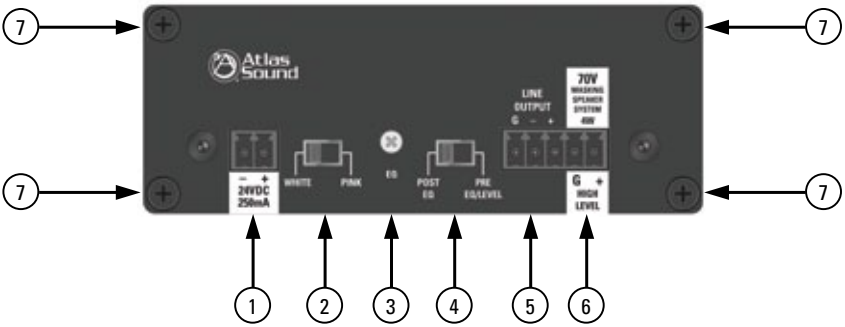
Rear Panel Description



TSD Input/Output connections are removable for easy system wiring. The connector has a 3.5mm pitch between pins.

1. **DC Power Input** - Each TSD that requires DC power comes with a 2 position connector for an external 24VDC power supply (sold separately). Because of the low power consumption, a single external power supply may power more than one TSD. Refer to the current requirements in milliamps to match with the appropriate power supply. **Note:** It is acceptable to exceed the current of the TSDs but NOT safe to use a power supply that is below the current requirement of the device.

2. **Noise Generator Selector** - Select the type of noise signal needed for your application. Most plenum masking uses pink noise when the ceiling has lay-in tiles. If you are masking under a raised floor or the ceiling is made from gypsum, it is recommended to use "white" noise.

3. **EQ Adjust** - Varies a low cut filter with a range of 1kHz to 8kHz at 6dB per octave. With this control turned fully clockwise, the filter will have no effect on the output signal. Rotate the control counter-clockwise to adjust the filter to your preferred masking spectra. This filter is used with a 1/3rd octave RTA (Real Time Analyzer) for final tuning of your sound masking system.

4. **Pre/Post Selector** - Determines whether the Line Level Output has the EQ and Gain Control in or out of the circuit. In "Pre" mode, the Gain Control and the EQ Control will have no effect on the Line Out, while in "Post" mode, both the EQ and Gain will effect the Line Output.

5. **Line Output** - A Balanced Line Level Output of the generator is present here. The connections between devices must be mated properly to the Output connector or signal loss and/or noise may be introduced. **Note:** Unbalanced line level inputs can be inserted by using the following wire configuration, tie (short) the (G) and (–) terminals together.

6. **High Level Output** - Connect up to six (6) 70.7V masking speakers when tapped at 0.5W each for a load no greater than 4W.

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7. **Cable Management Retainer Points** - Each TSD includes two cable retainer straps for securing the included cable management retainers. Remove one of the rear panel screws, align the panel hole with a retainer and firmly tighten the screws.

Knob and Security Cover

All front panel level controls feature a removable knob that can be replaced with an included security cover. Follow these steps to prevent potentiometer damage or unwanted changes.

1. Knob Installation - Turn the potentiometer shaft fully counter-clockwise. Align the knob indicator to the lowest setting on the panel and the potentiometer shaft slot. Carefully press the knob onto the potentiometer shaft. Do not force or damage may occur to the potentiometer.

2. Security Cover Installation - Remove the knob from the panel and insert the cover. Do not force or damage may occur to the potentiometer. Small pliers may be required to remove the knobs.

Mounting

There are three ways to securely mount this TSD:

1. Velcro™ - Each unit includes industrial grade Velcro™ with adhesive backing to adhere to any flat surface.

2. Brackets - Each unit includes two mounting brackets to secure to a cabinet or wall.

3. Rack Mount Panel - The optional TSD-RMK rack mount panel supports up to four TSDs in a 1RU space.

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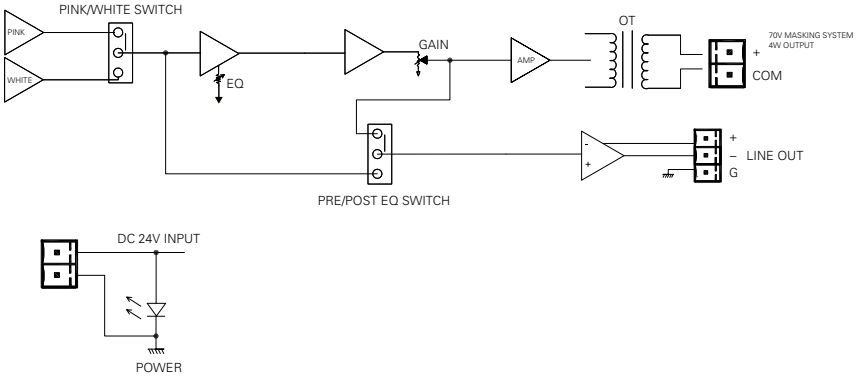
Block Diagram



Specifications

Description	Sound Masking Generator/Amplifier
Chassis Color	Black
Chassis Material	Aluminum
Inputs	
Noise Generator	Internal Pink or White Selectable
Outputs	
Type	Qty 1, Balanced Line
Connection	Removable 3 Position Captive Screw 3.5mm Spacing
Impedance	300Ω Balanced, 150Ω Unbalanced
Line Output Level	Maximum Output 500mV
Type	Qty 1, Speaker Out 4W & 70.7V Masking System Speakers
Connection	Removable 3 Position Captive Screw 3.5mm Spacing
Line Output Level	Maximum Output 4W
Controls	
Level Control	Qty 1, Removable Knob with Security Cover
Noise Generator Select	Pink or White
Line Out Select	Pre or Post EQ
EQ Adjust	Recessed Screw Driver
Indicators	
Power	Blue

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Electrical

Topology	Random Analog
Frequency Response	20Hz - 20kHz Line Out Pre EQ Only
EQ Filter	High Cut, Variable, 1kHz - 8kHz/6dB

Mounting

Velcro™	Industrial Grade, Included
Brackets	Qty 2, Included
TSD-RMK	Optional 1 RU Rack Mount Panel (Supports 4 TSD Units)
Cable Retainer	Qty 2, Included

Power Requirements

Voltage	24VDC
Average Power Consumption	100mA
Average Power Consumption	2.4W
Dimensions	H 1.5" (39mm) x W 4" (101mm) x D 2.75" (70mm)
Weight	6oz, .165kg

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Limited Warranty

All products manufactured by Atlas Sound are warranted to the original dealer/installer, industrial or commercial purchaser to be free from defects in material and workmanship and to be in compliance with our published specifications, if any. This warranty shall extend from the date of purchase for a period of three years on all Atlas Sound products, including SOUNDOLIER brand, and ATLAS SOUND brand products except as follows: one year on electronics and control systems; one year on replacement parts; and one year on Musician Series stands and related accessories. Additionally, fuses and lamps carry no warranty. Atlas Sound will solely at its discretion, replace at no charge or repair free of charge defective parts or products when the product has been applied and used in accordance with our published operation and installation instructions. We will not be responsible for defects caused by improper storage, misuse (including failure to provide reasonable and necessary maintenance), accident, abnormal atmospheres, water immersion, lightning discharge, or malfunctions when products have been modified or operated in excess of rated power, altered, serviced or installed in other than a workman like manner. The original sales invoice should be retained as evidence of purchase under the terms of this warranty. All warranty returns must comply with our returns policy set forth below. When products returned to Atlas Sound do not qualify for repair or replacement under our warranty, repairs may be performed at prevailing costs for material and labor unless there is included with the returned product(s) a written request for an estimate of repair costs before any nonwarranty work is performed. In the event of replacement or upon completion of repairs, return shipment will be made with the transportation charges collect.

EXCEPT TO THE EXTENT THAT APPLICABLE LAW PREVENTS THE LIMITATION OF CONSEQUENTIAL DAMAGES FOR PERSONAL INJURY, ATLAS SOUND SHALL NOT BE LIABLE IN TORT OR CONTRACT FOR ANY DIRECT, CONSEQUENTIAL OR INCIDENTAL LOSS OR DAMAGE ARISING OUT OF THE INSTALLATION, USE OR INABILITY TO USE THE PRODUCTS. THE ABOVE WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Atlas Sound does not assume, or does it authorize any other person to assume or extend on its behalf, any other warranty, obligation, or liability. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

Service

Should your Atlas TSD require service, please contact the Atlas Sound warranty department at 1-877-689-8055, ext. 1274 to obtain an RA number.

Atlas Sound Tech Support can be reached at 1-800-876-3333.

Visit our website at www.AtlasSound.com to see other Atlas products

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